

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the present application:

**Listing of Claims:**

1-4. (Cancelled)

5. (Previously Presented) The method of claim 32, wherein maintaining a table of transmit bias control values cross-referenced to selected transmitter output levels includes cross-referencing the transmit bias control values to temperature; the method further comprising:

measuring temperature; and,

wherein supplying a corresponding initial transmit bias control value includes supplying an initial transmit bias control value from the table in response to the temperature.

6. (Previously Presented) The method of claim 32, wherein selecting a transmitter output level includes selecting a transmitter output frequency;

wherein maintaining a table includes cross-referencing the transmit bias control values to transmitter output frequencies.

7. (Previously Presented) The method of claim 32, further comprising:

selecting transmitter output levels in accordance with advanced mobile phone service (AMPS) specifications.

8. (Previously Presented) The method of claim 7, further comprising: adjusting the transmit bias control value until the transmitter output level equals the first selected transmitter output level within 20 milliseconds.

9. (Previously Presented) The method of claim 32, wherein measuring the transmitter output level includes converting a transmitter output voltage to a binary number.

10. (Previously Presented) The method of claim 9 wherein maintaining a table includes storing the transmit bias control values as binary numbers.

11. (Previously Presented) The method of claim 8 wherein adjusting the transmit bias control value until the transmitter output level equals the selected transmitter output level includes adjusting the compensated transmit bias control value in response to the measured transmitter output level, and to a reference value to create corrected bias control value.

12. (Previously Presented) The method of claim 11 further comprising:  
converting the corrected bias control value to a control voltage; and  
using the control voltage to bias the transmitter.

13. (Cancelled).

14. (Previously Presented) In a wireless communications device, a method comprising:  
operating at a first transmitter output level;  
determining an error value in a first transmit bias control value associated with the first transmitter output level;  
saving the error value;  
selecting a second transmit bias control value corresponding to a second transmitter output level; and,  
adding the error value to the second transmit bias control value to create a compensated transmit bias control value.

15. (Previously Presented) In a wireless communications device, a method for controlling transmitter output levels, the method comprising:

- maintaining a table of transmit bias control values cross-referenced to transmitter output levels;
- selecting transmitter output levels;
- supplying a transmit bias control value from the table corresponding to a selected transmitter output level;
- measuring a resulting transmitter output level;
- creating an adjusted transmit bias control value in response to the measured resulting transmitter output level and a reference value;
- using a difference between the transmit bias control value and the corresponding adjusted transmit bias control value to create an error value;
- saving the error value; and,
- adding the error value to another transmit bias control value corresponding to another selected transmitter output level.

16-19. (Cancelled)

20. (Currently Amended) In a wireless communications device, a system for controlling transmitter output levels, the system comprising:

- a transmitter configured to accept an ~~adjusted~~ initial transmit bias control value and to supply a transmitter output level in response to the ~~adjusted~~ initial transmit bias control value; and,
- ~~a gain control circuit configured to supply the adjusted transmit bias control value in response to a transmitter output measurement and to a reference, the gain control circuit comprising:~~
  - a measuring circuit configured to accept the transmitter output level and to supply a transmitter output measurement,
  - a calculator having an input to receive the transmitter output measurement and an input to receive a reference value, the calculator generating an error value based on the transmitter output measurement and the reference value,

a table of initial transmit bias control values cross-referenced to transmitter output levels, the table configured to accept an initial transmitter output level selection and to supply an the initial transmit bias control value in response to the initial transmitter output level selection, the table configured to accept another transmitter output level selection and to supply another transmit bias control value in response to the another transmitter output level selection, and,

a compensator configured to accept the adjusted another transmit bias control value ~~and the initial transmit bias control value~~ and the error value and to supply a compensated transmit bias control value based on the another transmitter bias control value and the error value ~~based on a difference between the adjusted bias control value and the initial transmit bias control value~~.

21. (original) The system of claim 20 the system further comprising:

a thermometer having an output supplying temperature data; and, wherein the table has an input to accept the temperature data, the table having initial transmit bias control values cross-referenced to temperature.

22. (original) The system of claim 20 wherein the table includes initial transmit bias control values cross-referenced to transmitter output frequency and the table having an input for accepting transmitter output frequency selections.

23. (Previously Presented) The system of claim 20 wherein the table accepts transmitter output level selections in accordance with advanced mobile phone service (AMPS) specifications.

24. (Previously Presented) The system of claim 23 wherein the transmitter generates a selected transmitter output level within 20 milliseconds.

25. (Original) The system of claim 20 wherein the measuring circuit accepts the transmitter output level as a voltage and supplies the transmitter output measurement as a binary number.

26. (Original) The system of claim 25 wherein the table includes initial transmit bias control values stored as binary numbers.

27. (Currently Amended) The system of claim 26 wherein the gain control circuit further includes:

~~a calculator having an input accepting the output of the measuring circuit, an input accepting the output of the compensator, an input accepting the reference, and an output to supply the adjusted transmit bias control value as a binary number; and~~

a converter with an input connected to the an output of the calculator for receiving an adjusted transmit bias control value based on the compensated transmit bias control value, and an output supplying a control voltage, wherein the transmitter input accepts the converter output as a biasing signal.

28. (Currently Amended) The system of claim 27 wherein the compensator includes:

an error circuit having an input connected to the calculator output, an input accepting initial transmit bias control values from the table, and an output supplying an ~~the~~ error value ~~associated with the initial transmit bias control value~~;

a memory circuit having an input accepting and storing the error value;  
and[[,]]

a summing circuit having an input accepting the stored error value from the memory circuit, an input accepting the another ~~initial~~ transmit bias control value from the table, and an output to supply the compensated transmit bias control value.

29. (Cancelled)

30. (Previously Presented) In a wireless communication device, a method for controlling transmitter output power level, the method comprising:

- determining an error correction value required to adjust a first transmit bias control value to set a transmitter output level equal to a first selected transmitter output level corresponding to the first transmit bias control value;

- storing the error correction value in memory; and

- adding the error correction value to a second bias control value stored in memory corresponding to a second selected transmitter output level to generate a compensated bias control value.

31. (Previously Presented) A method in accordance with claim 30, wherein the determining comprises:

- measuring the transmitter output level when the first bias control value is applied to the transmitter;

- determining a corrected bias control value required to set the transmitter output level equal to the first selected transmitter output level; and

- calculating the error correction value as a difference between the corrected bias control value and the first transmit bias control value.

32. (Previously Presented) A method in accordance with claim 30, further comprising:

- maintaining a table comprising a plurality of bias control values corresponding to a plurality of transmitter output levels.

33. (Currently Amended) A system for controlling transmitter output levels, the system comprising:

- a transmitter configured to ~~produce~~ transmit a signal at a transmitter output level in accordance with transmit bias control values;

a calculator configured to determine an error correction value required to adjust a first transmit bias control value to set the transmitter output level equal to a first selected transmitter output level corresponding to the first transmit bias control value;

a memory configured to store the error correction value; and

a compensator configured to generate, in response to a selection of a second transmitter output level, a compensated transmit bias control value equal to a sum of a second bias control value stored in the memory and the error correction value.